IN THE DIRECTION OF COMMUNAL ECONOMIES: A PROCESS FOR THE ORGANIZATION OF COMMUNALLY-OWNED CONSUMER-PRODUCT INDUSTRIES FOR THE PURPOSE OF WAGE AND SKILL DEVELOPMENT

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ABSTRACT

In the Direction of Communal Economies: A Process for the Organization of Communally-Owned Consumer-Product Industries for the Purpose of Wage and Skill Development

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Submitted to the Department of Urban Studies and Planning on May 10, 1974 in partial fulfillment of the requirements for the degree of Master in City Planning.

The thesis presents a process for developing the wages and skills of un- and under-employed members of a community, through the organization of "community product" industries: industries whose essential characteristics (ownership, technology, wages, product prices, and the product itself) are determined, in open discussion, by the community, and whose products are bought by the community.

The process of developing these "community product" industries is recommended as an initial stage for the development of a full communal (small scale, non-market) economy.

The process is written in non-technical language and is intended for people working directly with communities rather than theorists.

Thesis Supervisor: Tunney F. Lee
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CONTENTS

I. AN INTRODUCTION

This paper describes a process, but it's not a handbook. It is a framework to work from, like an initial map of an unexplored social region. Most of the exploration and description lies ahead.

The process evolved as part of a research project in 1973 on small-scale community-goods industries for poor communities directed by Barry Stein at the Center for Community Economic Development, in Cambridge, Massachusetts. My responsibility in the project was to develop a method of some kind for examining the community resources needed to support small-scale, community-owned consumer goods industries: a "market analysis", a "labor force analysis", a "financial capital" analysis, a "cost-benefit" analysis, an "input-output" analysis, etc., etc. -- the usual kind of requirements for "economic studies".

The first element completed was the marketing piece, basically the Expenditure Check List (pp. 68-70). It was a little unusual, because it was based on an unusual study (discussed later), but it was thoroughly traditional in the sense that it predicted a community's patterns of action by reworking given statistics from published sources. The information about a community's desires and capabilities (to buy goods, in this case) came from the printed pages of statistical publications.

This method of getting information (as in all the above traditional methods of analysis) had always struck me as being terribly, fundamentally unsatisfactory, very abstract, not determined by the

interactions of real people in real time, not "real" in any important sense. No feelings. No desires. No struggles. Dead. Numb. Numbers.*

I didn't know what the alternative was, but because I had had a decade of experience in community organization and small-scale municipal management, I knew that there had to be one -- one that was alive.

And as I began to think about how a community could evaluate its resources, I saw that I now had the opportunity to begin work on my most earnest objective: the planning of a community whose economic relationships were not based on the impersonal, anonymous, "market forces", which determine the basic American economic relationships, but on collective decision-making, in which every important aspect of economic life (not absolutely constrained by the larger economy) was determined by the interaction and conscious choice of the members of the community. (I call this kind of economy a "communal economy".)

The result is the Process which follows.

From one perspective (the dominant one in this paper), the process is concerned with just one (fundamental) economic activity: the wage and skill development of under-utilized members of the community, through a new kind of industry (the "community product" industry) -- an industry which requires the spirit and structure of collective development for its success.

But from the "opposite" perspective (from "the other end of the

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* (Of course, the traditional economic analyses may be useful to measure the probable economic relationships at a given time in the past or immediate present. But they should not be used to assess what will happen in the future, except to gain the most gross measurements, and only then when - as in a large (national, regional or metropolitan) economy--live, direct collective decision-making is truly impossible, and market mechanisms must be used.)

telescope"), the process is about the development of a whole communal economy based on that collective spirit and structure, with a spotlight on just one of the many possible sub-processes (the development of those "community product" industries) that can grow in this economic environment.

This second and larger perspective is most concisely expressed, here, in the communal contract conference (Task #5). The contract conference is second in importance only to the skill development (work-contribution) aspect of the new economy, because the contract conference gives the community-as-a-whole the opportunity to make open decisions on the monetary value (wages and prices) of the work contributions of its members -- not only the members involved in the "community products" industries described in this paper, but also those involved in other local sales (retail, real estate, finance, government, etc.), and in non-local ("export") sales.

That is, in this new, communal economy, all important matters relating to the value of work and the distribution of financial security in the community should be conducted openly and collectively, with the participation of all those members of the community concerned with the questions at hand.

"Why should one member of the community receive an income of $50,000 and another $5,000?", "Why are a bank's interest rates on loans as they are?", "What is an appropriate range for profit margins in various local sectors?", "Should an individual who sells primarily to people living outside the community receive a greater private financial reward than one who sells within the community?", "What are the most effective means of organizing the collective financial resources of the community (from both local and non-local sales) for development-investment purposes?", etc. -- these kinds of issues should be the subject of open discussion and collective resolution. The contract conference suggests one format for facilitating these

diverse discussions covering many sectors of the community economy; in a sense can be seen as the "hub" of the community economy "wheel".

And so, from the larger perspective, the paper is ultimately about this: the putting-together of a whole new community economic system, piece-by-piece -- one piece of which is the community product industry, the immediate subject of this paper.

So as you're reading this paper, I hope that you'll get a feeling for what it would be like to construct a new economic system. And, in addition, working through the process may give you, as it certainly gave me, the means for evaluating the conceptual and operational potentials and difficulties of not only the economic system proposed here, but of other economic systems as well, particularly the market system of the United States.

A Strong Caution on What to Expect

Having made some claims for the paper, I must now express a caution about what to reasonably expect from it.

I conceived of it and wrote it as a "process", first, because it best suggests the real-life process which should result if and when carried into practice; and second, because it's important in any new idea to expose the problems vividly and quickly, so that the reader/user can make necessary changes.

But this step-by-step method of presentation also has the severe dis-advantage of appearing to be a completed, how-to-do-it "HANDBOOK", which it is not at all intended to be. The idea is too new to be at all "complete". And more importantly, a "complete" process can only

be worked out by the people actually doing it; each community will have a different way of proceeding based on its experience and its soical organization. (To be more direct: if you don't see what you want to see, do it yourself.)

So it's not a Handbook. It's a Framework for a process which is to be explored, filled-out, detailed, reworked, developed, by its users; it's like using the initial map of an unexplored region. And this development has no time-frame: it might take a few years to complete, or it might take decades.

In any case, what is offered here is a challenge, not a solution.

A note on who's writing this to who:

I've written this paper to my colleagues who work directly with their communities for economic development (as I have and will again). I'd like you to read it as if we were having a conversation about something that may be helpful to us. So I don't want to disguise myself as some anonymous "we" or "the author"; I'd just like to say "I", and know that I'm talking with friends -- who've taught me most of what I know in the first place. (Among the most helpful friends has been Barry Stein of CCED, who I thank for his assistance and support. Thanks also to Herb Holleman, graduate students Ranko Bon and Zmarak Shalizi, and teachers Tunney Lee, Tom Vietorisz, Karen Polenske, Lewis Mumford and Bennett Harrison, at M.I.T.; and to Deforest Brown.)

II. THE COMMUNITY PRODUCT INDUSTRY AND ITS FUNCTION

As you probably know, the Community Development Corporations and other municipal-level economic development organizations in the U.S. that produce saleable products (other than housing) have concentrated almost exclusively on industries that produce goods and services for sale outside their community. (I'll call these industries "export" from here on.)

The following piece outlines a supplementary strategy, a process for organizing COMMUNITY PRODUCT industries: industries whose essential characteristics (ownership, wages, technology, product prices and the product itself, etc.) are determined by the community, and whose products are bought by the community.

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The process-as-a-whole is composed of four distinguishable elements, each requiring a successively higher level of social capability for its organization:

1. The development of small-scale technologies.
2. The organization of industries -- using these technologies -- which produce goods and services for the community's consumption.
3. The development of a non-market/"communal" economy -- which among other things, determines the essential characteristics of such industries (the results being "community products") -- and of a community based on cooperative rather than competitive relationships.

4. The development of the skills and wages of under-utilized ("un-" or "under-employed") people in the community through a substantial process of wage and skill redistribution within the community -- carried out as part of this communal economy --; and through this, the development of their capacities to contribute to the community's economy.

In this paper, the four "elements" are integrated into one inseparable process for communal economic development (though these "elements" roughly correspond to the central concerns of the Organizational Tasks, which follow).

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Premises and Assumptions

The paper relies on the following premises:

1) the supportive environment required for sustained, significant skill and wage development of large numbers of poor people cannot be found in the competitive market system; 2) the required supportive environment can only be developed within communities (or systems of communities) -- that is, it cannot be developed in polities as large as states or the nation --, and these communities must be specifically re-organized to provide this support; and 3) industries which can compete in the market systems outside these communities (the export industries) are necessary, but primarily to bring money into the community to support the community product industries*; and finally 4) the export industries should be designed for maximum competitive capability, and community product industries should be designed -- very differently -- for large-scale wage and skill development.

* "Exports" must include sales made to non-residents by individuals as well as by organizations; industrial organization within the community is not necessarily a requirement for exporting. See p. 63 in the Appendix on Financial Organization.

The paper also makes some assumptions about the demographic conditions in which that supportive community environment is most likely to develop successfully -- where it's going to be easiest to do:

First, it should be obvious to anyone who has toiled in our major cities that this process -- or any other innovative social process -- will be vastly easier to do in a smaller community (5-50,000) than in a major metropolis. And the process will be still easier to do if that community that is sufficiently separated in distance from a major metropolis to be able to have a significant measure of sovereignty over its affairs, which neither a neighborhood nor a suburb of major metropolises can claim to have (because of the fervent selling activities of the real estate and highway industries, the frantic needs of their clientele to move, etc.) (This really requires substantial control over land itself. See Bob Swann's booklet on Community Land Trusts.*) But at the same time, it will help if the community is close enough to a metropolis, so that it can sell its export goods and services to large, diversified metropolitan markets. A good average "best" distance from the edge of the metropolis might be forty miles.

Other pre-conditions have to do with the organizational capabilities of the community.

First, the community should have some experience with productive collective activity (i.e. beyond protest) in which some permanent

* International Independence Institute, A Community Land Trust, A Guide to a New Model for Land Tenure in America; Cambridge, Mass: Center for Community Economic Development, 1972.

new institution resulted. Very preferably it should have established a community organization that engages in some form of economic activity (housing construction or rehabilitation, production of goods and services outside the community, producers co-ops, etc.): in other words, some familiarity with money transactions.

More importantly, the community must know from experience that it can work together; and that it needs to go through the struggle for the sake of a better life for everyone involved.

Community Development Corporations

The Community Development Corporations (CDCs) which have arisen from poor communities are one kind of organization which might have the necessary experiences for this process.

Many of the CDC's have had successful experiences with export production, insofar as they've been able to establish markets, make profits, employ residents, etc.

But some of the limitations of relying exclusively on export activities for developmental purposes are already becoming obvious to some of the CDCs, the oldest of which are only seven years old. And their problems with the dilemmas of export are indicative of the problems typically faced by developmental agencies that do not have even the CDC's advantage of community ownership.

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As the CDCs have found themselves in the position to compete in the market system, some have begun to feel the need to utilize the most competitive employees available to them in order to retain and expand their markets. And since they often lack the ability to

rapidly train large numbers of their own work forces, they have dismissed many of the lesser-skilled employees who were hired originally, and for whom the CDCs were designed, originally, to assist; and they have replaced these original workers with workers who were already employed in private industry outside the community, and to whom -- although they may be residents of the community -- the CDC is just another business.

Some of the dismissed employees will no doubt be rehired by some of the CDCs; and others of the dismissed will be able to use their skills learned in the CDCs to find employment of some kind.

But those original workers with lesser skills (for whose development the CDCs were born in the first place) who cannot "hold their own", who are back on the streets, will almost certainly bear a renewed and deepened cynicism, at best, and, at worst, a heart-breaking bitterness and sense of betrayal.

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In my own struggle with these kinds of problems, as a person who has worked closely with a large number of CDCs as well as with municipal governments, I've worked towards some new conceptions of "community" and "community economic development", and a process of achieving them that may be useful.

The process I'm recommending here acknowledges the further development of competitive, profit-making industries; but it suggests a way for those competitive industries and workers, along with the rest of the community -- with its various forms of purchasing power -- to return to the problem of assisting the less-skilled to

increase their contribution to the economic and spiritual life of their communities.

But an "employment" process in your community -- why and how people are engaged to do work, and why and how they are rewarded for that work -- is obviously an inseparable part of your community's overall way of thinking about social relationships. And so, if you find the need to develop an employment process (such as the one that follows) which is significantly different from the ones that currently exist, the whole of the community's social relationships will have to change too -- or intolerable conflict will result.

And so this piece is, at the same time and inseparably, about the development of a new kind of employment process, of a new kind of industry, and of a new kind of community.

III. THE FRAMEWORK: FIVE ORGANIZATIONAL TASKS

The process is laid out in a set of five basic organizational tasks to be carried out by the community organization, over an unspecified period of years.

The Five Organizational Tasks are:

1. The preparation of the community and of the purchaser groups.

This task begins with the important discussion of the community's consumption patterns -- where it spends it's money, on what goods, who gets the dollars spent on the goods etc--, and of the critical social difference between producing goods specifically for the community's consumption and producing goods for sale outside the community. This should help both to begin a communal understanding of what its economy is and to set some initial guide lines for the selection of the product(s) to be communally produced.

The Expenditure Check List (p. 68) will be a major focus for this discussion. The task concludes with a very brief discussion of the identification of purchaser groups for "community products".

2. Participation of potential employees in the product selection and development of alternative projects.

This is the main part of the strategy. Simply stated, it's where the people who'll be making the products get in on the decisions about what the community should be making for itself, what their contribution should be (i.e., why they're needed), what their financial reward should be, etc. The "list" of possible products and projects to be carried out will be worked-out here in the first stages of a communal production contract.

3. Orgainzing the Assistance of Technologists.

You will probably need the assistance of an industrial engineer or production manager to help you design your production process and select machinery. Because you'll probably have to train them, to some extent, to understand your reasons for wanting to build enterprises, it's well to get them in relatively early on the process.

4. The Rest of the Economic Support System.

Once the technology has been identified, you may find the material inputs to that technology already produced in your community, and you certainly want access to the resources of the financial and governmental institutions, no matter what kind of technology you select.

These relevant resources should be organized before the communal contract conference.

5. The Communal Contract Conference.

In this final stage of the process, all the participants organized in the previous tasks, join to decide communally on the price of production factors (labor, finance, etc.), the pricing of the consumer goods, and the other communal contract understandings.

(And because wages and prices of any given community product enterprise will be discussed relative to the other wage and price relationships in the community, the communal contract conference can and should become, in the future, a forum for making collective decisions about the entirety of the community's economic relationships.)

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A complete book could of course be written on the details of how to achieve each of these Tasks. But if anyone does write those books, that writer will be describing a particular means that may not at all fit with the organizational methods of another person working in (or thinking about) some other community. And therefore the detailed description of how to achieve each Task and move to the achievement of the next must be the responsibility of the organizations in a given community.

The sole objective of this paper is to lay out these Tasks as simply and clearly as possible and with just enough detail to show the possibilities for real-life organization.

(If there's any single aspect of this piece that is most likely to frustrate you, it will probably be this lack of those details that remind you of what you would do and the way your resources are structured. But in my opinion, as a matter of fact, some of the inner-workings of some of the Tasks are already flavored with too much of my own details from my own background and experience.

(Such are the problems of describing a general "process", on the first attempt.)

In any case, I believe that this set of Tasks is sound and useful as a Framework to work from.

THE IDEA OF MAKING YOUR OWN GOODS: "COMMUNITY PRODUCTS"

Most people don't know where their household and personal products are made and they don't care, as long as they can get the products when they need them and at a reasonable price. People in Detroit don't buy "Clorox-made-in-Oakland-maybe-even-by-some-folks-who-live-there"; they just buy "Clorox". And since they don't know where it's made, they don't know where the money they paid for it ends up, who got the employment, etc.; and they also don't think about how, through-who-and-where, the Clorox got from Oakland to Detroit and the money got from Detroit to Oakland. (We know where most cars are made, and recently we found out a little bit about how beef and gasoline get to us , but these are exceptions.) All most of us really know is that we give the money to the person in the store and we get the product, and what happens to the money after that is a complete mystery.

But if your community is trying to increase its income and its ability to make its residents more productive,it should interest itself in who's making your consumer products and getting the benefits of your consumer dollars, and how to start making the consumer products and keeping the benefits for yourselves.

In this paper, we'll assume that your community has not yet seriously considered producing its own consumer goods, so we'll be starting "from scratch", beginning with a method for thinking about what they buy and who gets the employment benefits of what they buy, then moving to a tentative selection of goods that they might want to make for themselves.

The Social Requirements of Community Products

Before we get absorbed in the details of product selection, it's crucial to remind ourselves of the social nature of the process we're considering.

The process of replacing the products of another locality with the products of your community -- "community products" -- is more demanding socially than the "exporting" (selling products outside your community) carried on by most community economic development organizations.

Community products are more socially demanding than exporting because your community must provide much clearer support to your own product. If the product is going to succeed, you have to buy it, which means, in people terms, that you have to want the employees to do well. In other words, the desire for a product will not be sufficient if the "product" is just the consumer good that the community buys. The community's product must include the development of its people.

And so, if community products are going to be an important vehicle for helping unemployed and underemployed people make a contribution to their community's economy, the community must be prepared to make a committment. The employees of an "export" firm, selling outside the community, can accept a "market failure" because they expect the outside to not care in the first place -- outside it's dog-eat-dog. If it's going to continue to be dog-eat-dog on the inside too, within the community, it's hopeless for the people on the bottom. Those of us who have already seen "market

failures" on the inside know how hopeless it can get and how pointless it is to attempt community products without concentrating on the development of a supportive community.

And the development of a supportive community requires, I believe, the communal participation in the product selection and development that I'm suggesting here, and all the extensive and difficult community organization that leads to that participation.

Potential consumers should not be the only group involved in this process; as important as the consumers are, I consider it more important that the potential employees have the opportunity to participate in the decisions about what they will make/contribute, and to know to what extent the potential consumers support them in this contribution, to know the extent of the risk they take in offering their services to their community; they are the most vulnerable participants in this process.

It should be clear then, that while community products may offer great development potential because of the close purchasing support you can bring to them, they may also be hazardous because of the greater responsibility they require.

THE TASKS

TASK #1: PREPARATION

I suggest these initial steps to start the process moving: (a) getting a clear detailed picture of the range of products that you buy and (b) thinking about where these products are made: (c) doing a first-cut product selection, and (d) considering the organization of specific purchaser groups.

I've developed the Expenditure Check List (p. 68) to assist you in these steps. And before we get to the use of it, it's important at this point to say something about where the Check List came from, so you'll have a better sense of how much confidence you can put in it.

The Source of the Expenditure Check List

All the material, except column 5*, is based on data collected in 1960-61 by the U.S. Bureau of Labor Statistics for its massive Consumer Expenditure Survey. This basic data was reworked by Fabian Linden and his staff at the National Conference Board and published in the document I used: The Expenditure Patterns of American Families (Fabian Linden, ed., National Conference Board, Washington, D.C., 1963, now out of print).

The order of the 125 products in the Check List is determined by the dollar amount spent on each product by families earning

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* Column 5, the Scale column, was derived from a study by Barry Stein and Mark Hodax, "Competitive Scale in the Manufacture of Consumer Goods", Cambridge, Mass.: Center for Community Economic Development, 1974.

$3-5,000 in 1960-61, which we believed to be an average income for most poor families (in 1960-61). The order of most products would be different for families earning more or less income (as you can see by comparing Column 2 (expenditures of poor families) with Column 3 (expenditures of "average" families.)

I (and Mr. Linden and the B.L.S.) believe that the order of products now is basically the same now (1974) as it was in 1960-61. Some things have changed, as you can easily see: for example, "delivered milk (#4) is certainly farther down the list now than it was in 1960-61, and butter (#37) is now probably lower than margerine (#51). But basically the consumer economy is the same now as it was ten years ago. And I'll also demonstrate shortly that the order doesn't change very much at all from place to place in the country. So you can use the Check List as a basic description of what's being bought, at least for the purpose of checking it against what people in the community think they buy. (We have included only goods in our Check List. Services and housing are not included here, but are included in the original Linden publications, however.)

Inflation and Income Changes

Inflation is of course one of the factors that has altered the data since 1960, and if you want to get a better picture of what prices are in the present year, you can make the adjustments yourself by using the Purchasing Power of the Dollar Index, which is part of the easily-found Consumer Price Index. (You can find these indexes in the Statistical Abstract of the United States or The World

Almanac for example, two standard reference works.) To estimate how much would be spent on a product in present prices, simply multiply the ratio of the 1960 Purchasing Power Index over the present year's Purchasing Power Index, times the Check List expenditure. (In 1971, for example, the expenditure on a "car" would have been $274.00 -- $\frac{1.127}{.824}$ x $200 = $274.)

The subject of changing income levels also deserves discussion. I've chosen the $3-5,000 to represent the incomes of poor families because in the early '60's that was an "appropriate" figure. But most of the families who received $3-5,000 in 1960 were receiving more income ten or twelve years later. So the $3-5,000 category that was appropriate in 1960 is probably not appropriate in 1974, even though the increase in incomes may have been eaten away by inflation in the meantime.

The Use of the Expenditure Check List

A. "Annual Community Shopping List"

A simple review of the items of Columns 1 and 2 of the Check List should reduce the great blur of consumer goods that you move past every day to a distinct "annual community shopping list." As I've said, I assume that the Check List will be a reasonably accurate description of what you buy, but it might be very instructive to ask the participants in the meeting for changes or corrections so that the Check List corresponds better to the consumption patterns in your community.

B. Origins of Products

During this review it will also be instructive to try to

identify the places from where the products might originate. Not much time should be spent on this exercise because the true production origins can't be known in most cases, even from labels (which give only the address of the headquarters offices.) But it should serve to stimulate an awareness that most products, especially non-food products, can be made anywhere in the country, that most of them are not being made in your community; and that -- as a result -- you are sending a very large part of your community's income and decision-making power out to employ residents of other communities.

C. Beginning the Product Selection

If the community has generated some interest in exploring community products after reviewing their expenditure patterns and the origins of products, they will then be faced with the problem of deciding which of the 125 (!) products they might want to make for themselves.

I've developed the other columns of the Check List to give you some help in those decisions.

I. Dollar Expenditures

The Expenditure column, Column 2, can only give you a relative sense of what the community thinks is important, but products with the higher expenditures will usually have a more constant day-to-day demand and therefore require a smaller market population than products with lower expenditures. The exceptions should be obvious: cars, refrigerators, etc., large products bought infrequently but whose price tags give them high "annual" expenditures when their cost

is spread over the product's useful life. So the first elimination should be for those products that are so expensive that you would need a very large market area to cover production costs. (Column 2 shouldn't always be the final word on expenditures: you might find a way to make cheaper cars or refrigerators; but they would be different products than are sold now.)

II. Geographical Differences

The next two columns, 3 and 4, make it possible to narrow your choices further on the basis of geographical differences. The previous columns gave you information for the nature as a whole, but your community will want to know which products work best for your area. (You will already know most of this information -- like much of the other information on the Check List -- but the "Check" on your knowledge can be useful.)

Column 3, Central City/Rural Differences, gives you a way to sort out the products that do best in either rural areas or central cities (the two areas where most poor families presently live). Column 3a has a check (x) for every product whose consumption is 40-50% greater in rural areas than in central cities. Column 3b does the same thing for products stronger in central cities. Most of the products don't show a difference either way.

Column 4, The Four Regions, separates the country into Northeast (N.E.), North Central (N.C.), South (S) and West (W), and indicates which products are 40-50% stronger (+) or weaker (-) in one of those regions (NE, NC, S, W). For example, fish, raincoats and booze are

big in the Northeast (NE+). (There's probably a connection in there somewhere.)

Again, you can see that most of the products don't have a geographical bias in any direction.

One minor caution on these last two columns: The Bureau of Labor Statistics data was generally excellent, but I've been informed by an economist at M.I.T. that the data for the last two (geographical) columns was poorly collected and subject to doubt. So although most of the information given in columns 3 and 4 looks logical and obvious, there may be considerable room for legitimate doubt.

Almost everything that can be learned from the Expenditure Check List has been accounted for. Presumably the members of this community meeting have been keeping a scorecard on products that have met the various criteria that have suggested, and the number of possible choices has been reduced from 125 to 20, more or less.

Product Specification

One more note on the Check List is essential: Many of the "products" on the List are not names of things you can identify as one product (though on your own home shopping list it might be one item). For example, products in the food categories on the list are often one thing: bananas are bananas, etc., but products in the medicine categories are often groups of things: "non-prescription drugs" includes everything from aspirins to antiseptics. Ditto for "soap", etc.

So after you've identified a product from the list that you want to look into further, you may have to make the product still

more specific. "What kind of soap?" "What kind of men's shirts?", etc. .

IDENTIFICATION OF PURCHASERS: SIMPLIFYING THE DISTRIBUTION SYSTEM

All products give a service -- they feed you, they keep you warm, etc. So part of your decision about products will be based on the identification of the consumers you want to serve on the purchasing end. Eventually, you will want to make the decisions on the bases of broad social purposes: interesting the youth of the community, serving the elderly or schoolchildren, etc. But on the first attempts at the process, and if you have the opportunity to do so, it will be advantageous to pick purchaser groups which have already been organized, so that collective purchasing by contract can be carried out with the fewest possible hassles.

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The communal contract (Task #5) will mean nothing if the consumers can either purchase the product or not purchase it, as they wish. The committment of the community to the under-utilized workers is a committment to purchase (according to quality and delivery standards agreed upon in the contract).

Most "consumer products" are not bought this way. They're bought as needed, and even if you buy the same basic product every week, you have the option to choose between varieties (of even things as primitive and characterless as potatoes).

On the other hand, of course, many consumer products like magazines, freezer foods, etc., are bought on a contract basis, so we

have some experience with how this works already, in an economy based on individual needs.

(Of course, because the community we're considering is not based primarily on the satisfaction of individual needs, but on principles of collective assistance and development, we can't look to "free enterprise" contracts to give us more than a rough idea of what we want.)

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So to facilitate the de-bugging of this new distribution system, think, as you go through the Check List, of organizations with large memberships that would have a clear interest in buying the product.

To take one of many examples, men's work trousers (#64 on the list) would be of interest to some of the labor unions (or producer co-ops) in your community. (We'll use men's work trousers for our example in the section on Technology Design, pp. 42). But it's worth stressing that "labor unions" are only one example of what to look for in existing organizations; in some communities the unions would be the last place to start, while in others they may be fundamental to the success of the process. (Please remember that this paper should be used only as a framework.)

Eventually, you'll have to organize new consumer organizations (including the community as-a-whole) if these are to be truly community enterprises (and if you're going to need financial support from larger sources than the sub-community consumer groups like unions, etc.).

Technology

By "technology", we mean the following: a means of getting to the objective of your productive process that describes the specific organization of materials, machinery, "energy" and people that gives you a specific product -- the product being anything from aspirins to skill development, or combinations of such things.

The problems of finding an "appropriate technology" is likely to become increasingly dominant in your discussions because your "technology" should be the result of all your thoughts about what you want from community economic development -- what combinations of factors will allow employees to make the maximum contribution to their economics or skill development, quality goods, reasonable prices, etc.

But at this early point, you're still setting the stage for the participation of potential employees, and you'll need only a tentative technological description of some of the products you have in mind. From these tentative technological descriptions you can then make judgements about whether the production of any product on your revised list seems to fit a) your objectives for worker development and b) your financial capacity, both of which will be dealt with shortly.

You only need to eliminate technologies that are obviously unworkable at this point, technologies with very high proportions of equipment to workers. (Notice, of course, that the production of automotive fuel had one of these "obviously unworkable technologies" until people started finding new ways to use garbage and other natural wastes to produce high octane fuels.)

TASK #2: PARTICIPATION OF POTENTIAL EMPLOYEES

We've described the broad framework for development above -- the concern for development of under-utilized capabilities to contribute to the community... The participants in this development (consumers, community organizations, the employees, the other links in the community economy) will also have pragmatic concerns which focus the larger objectives. For example:

*The community organization will be concerned with finding employees for its firm(s) who are interested in what they're doing, who know the consequences for themselves and the community of doing well and doing poorly -- consequences which, as we've said, are far more significant in these community product projects than in the export projects.

*The employees will be concerned that they are providing for a community which is interested in what it's buying, and which understands the consequences for itself, and especially that part of it which is the employees, of supporting the products well or poorly.

This second "task" should provide the structure for dealing with these issues and concerns in a manner as free as possible of the frustrations that would otherwise result from a process as unfamiliar as this one will be. Since this frustration factor is likely to be of critical importance (as it always is in real community organization) it's well to begin by focusing on the reduction of frustration, if only to get the true "flavor" of the process from this point on.

We can make some assumptions about the feelings of the potential employees:

a) It's very unlikely that most un- or under-employed workers will spontaneously want to participate in this communal decision-making process (at least in the first years of the process), because their whole concern can be expected to be the earning of money, and they -- like all the other participants in the process -- expect free markets to work their automatic wonders in the provision of what they want (even if their experience tells them that the markets haven't worked so far -- unless "hustling", the perfect example of a market operation, has paid off.)

b) Even when (and if) they do decide to participate in the process, they will be less likely than the other participants to endure a protracted negotiation process. (This may be less true for older workers than for young ones.)

So in doing this task we must take more than the usual care to see that the potential workers are encouraged to join the process and that the process maintains its momentum. I won't attempt to go into detail in describing the possible strategies and organizational structures necessary to achieve these results (mostly because the detail should be supplied by the community organization). But I can sketch out a few strategies and structures that deal with 1) encouraging entrance into the process (i.e. "advertising"), and 2) the decision-making process per se.

1. "Advertising"

The "best" kind of advertizing -- the most direct, and "honest" -- and the kind that may be possible after the community has several years experience with the process, would be to send out news that the

community wanted to make some products for itself, and that it needed people to provide major help in deciding what products should be made, what they should cost (and specifically what the wages would cost), what the risks to the enterprise would be and how to modify them, etc., and then to make them. It would say explicitly that the community (however represented) was concerned with helping citizens whose capabilities were poorly utilized to develop those capabilities for their own sake and for the sake of their community, etc.

The response to such advertizing would be negligible. Too much uncertainty, too much "goodness and light" at this stage. So it is likely that this "honest" information will have to be conveyed at some point after the potential employees had come to apply, having responded to the more ordinary form of advertising, sent out through available community channels, announcing "job openings", "starting wages", etc.

(Those who were not interested after the real nature of the project was described would "go back", no harm done, especially if transportation costs, etc. are taken care of.)

I spell out this mundane sequence primarily to emphasize again the requirements of "export" and "import substitution" projects.

2. Decision-Making: Review of the Process to Date, etc.

All that needs to be said about this aspect of the "task" is that the potential employees know clearly how the process got to its present stage and why, and what the further decision-making requirements will be, emphasizing that final decisions have not been made. That is, the community organization will want to review, in a step-

by-step condensation of Task #1, what it expects from the process -- particularly from the employees' development -- so that the potential employees can respond and formulate expectations of their own: so that both the community organization and the potential employees can be in agreement on the purpose of the new enterprise before the "productive" activity (turning out products) is begun.

Skill Development

The single most important aspect of this task -- given that some preliminary wage ranges can be agreed upon -- will be the discussion of how skill development will take place, since this is the overriding issue of the process. (By "skill development" we mean, again, only the development of "job skills", not the family or community skills which are critical to the overall success of the development process but which are not considered in this paper.) The resources required for each given technology will be discussed in the next task, and it can't be elaborated here except to suggest how the process could go, at its best. It's very conceivable that a group of potential employees will announce that they currently lack the skills to make a Product X (from the list) but -- having understood the purpose of the project -- that they want to make/contribute that Product X and learn the skills for its production.

Of course many disappointments in this stage can be foreseen, among them the spectre that either not enough potential employees will come into the process to get any project off the ground, or that, although a large enough body of potential employees has emerged to consider several projects, that large body is divided into several

too-small groups through the process of individual selection. But none of the complications appears to be insurmountable.

TASK #3: ORGANIZING ASSISTANCE OF TECHNOLOGISTS

Assuming that a consensus can be reached among the potential employees and the community organization about a small number of possible product-projects, you will then need a description of how the product is to be made, so that costs and product prices can be determined. For this you will need to find technologists (engineers or production managers) acquainted with the products that you're considering. (An expanded discussion of the development of the necessary technology is found in Part IV , B., p. 42 .)

The technologist will require you to estimate a consumer population size and the skill levels of your potential employees. With this information, he/she can sketch out a preliminary set of physical inputs (machines, materials and supplies, etc.)

The next task will be to determine which, if any, of these physical inputs can be provided within the community.

TASK #4: ORGANIZATION OF THE ECONOMIC SUPPORT SYSTEM

The desire to increase the capacity for contribution to the community's development should pervade every aspect of this process, and should extend to each member of the community. In this task we're concerned with increasing the capacity of local businesses and government to contribute to the development of the new import substitution enterprises.

Out of the preceding interactions with the technologist will come a set of inputs required for production. Some of these inputs may be

available in the community. But it's highly unlikely that more than one or two major inputs will be found locally, at the start. (Finance, utilties and governmental services will be the exceptions, except in the smallest cities.) Therefore this task may be considerably less complex than the others.

A. Suppliers

1. For each product you're considering, you will have generated a list of imports necessary for production (from the technological analysis). This list should be broken into fine detail (corresponding to the seven-digit Standard Industrial Classification (S.I.C.) for the goods-requirements.)

2. A search will then be carried out within the community for present or potential providers of these goods and services. The research can be conducted by telephone, using a telephone book as a guide (unless your locality has prepared a separate industrial directory).

3. Those firms which can or might provide the inputs will be asked to discuss the possibility of participating in the development process. Their participation will be as follows:

a) The firm will offer to provide a required part, machine service, etc. at a first-estimate price. The final price quantity and other sales specifications will be determined during the course of the communal contract conferences.

b) The firm is not required to make a definite commitment to the sales. The only requirement is that it participate in the communal contract conferences if its inputs are associated with one of the

products that reach the semi-final selections of Task #3.

B. Buyers

Outputs: Purchasers

The eventual sale to the community of the new product will require only one or two retail outlets (if any: the sales might be made at or by the production facility). Therefore the organization of the retail output participants will be "easy" in terms of numbers of firms to contact, though obviously the entire marketing strategy, which is so heavily dependent on conscious community support, will be the most complex and demanding aspect of the whole process.

I won't discuss marketing strategies beyond those implicit in Task #1. It should be sufficient to say that the purchasing firms must make their contributions to the pricing conferences at the communal contract meeting.

C. Communal Contract Negotiations

A more detailed picture of these conferences will be developed in Task #5 so here I'll simply summarize the meaning of that task. (Of course the whole process of the communal contract should be spelled out to potential participants.)

The idea of the communal contract is that prices for "production factors" (people, machines, financial capital) in this community product process will be based, not on free market criteria (though these may be one of the secondary constraints), but on the extent to which the members of the community (suppliers and purchasers) decide that they are willing and able to contribute to the development of those residents whose capacities are currently under-utilized. As

we'll see in the contract conference, the benefits will not necessarily fall exclusively to this under-utilized group -- some consumer products may be cheaper, sales and profits of existing firms may be increased, etc. But the basic criterion is to be the development of a significant number of under-utilized people; i.e., if a project cannot meet this criterion it should be scrapped, regardless of its other benefits.

Supplier prices, therefore, will be deliberately chosen on the basis of the specific human development needs of the new enterprise and those prices (and other marketing arrangements) will be considered to be fixed commitments, with acceptable ranges specified in the communal contract.

No firm will be asked to "lose money", of course. But this financial-capability issue is so dependent on considerations of reasonable and necessary returns that, in this process, the analysis of financial capability will require more than a glance at the after-tax profit figure.

In Task #5 we suggest that the group of participants "might include" bankers, retailers, manufacturers, etc. It's immediately obvious to everyone that no present community in the U.S. is going to find all, most or even many of these business-types just waiting around hoping you'll invite them in. We should be able to agree simply that some communities can become (or are now) skillful enough to "turn around" several parts of the existing economic support system and bring them into the process, or to replace them.

TASK #5: THE COMMUNAL CONTRACT CONFERENCE

We'll assume that the number of projects being considered has been narrowed to two or three. Each of these projects requires a communal contract "meeting". (In actual practice, of course, each project would be considered as part of one extended conference.)

The objective of this conference* is to determine the most satisfactory financial arrangements for the community product industry, through the open, collective discussion of all effected members of the community: the employees, concerned about the relationship of their wages and skill-levels to other wage and skill-levels in the community; the purchasers, concerned about price, quality of goods, delivery schedules, etc; the community representatives, concerned about costs to the community; community suppliers concerned about adequate prices for inputs; etc.

So here's a description of the way a hypothetical contract conference might go:

The participants, sitting around one table, might include at least:

* the potential employees (or their representatives)
* the representatives of the community organization which owns the enterprise
* the representatives of the purchaser group;

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* As noted in the Introduction, the communal contract conference format should be applicable to the other major economic relationships in a communal economy (retail, etc.), as well. (And also to the ongoing planning of the community product industries, once they're past the preparatory stage described in this paper.)

and at some point:

* the city manager of the local government
* a local banker
* the director of the local vocational training school
* the owner of a local retail store
* the manager of the local electric utility company
* the owners of five local manufacturing firms that (1) make machines, (2) make machine parts, (3) supply raw materials, (4) supply office equipment, (5) repair machines and equipment.

1. Costs

Each participant will give his/her costs, and explanation for them. Costs to others than the participants will also be considered. (For example, the local government, the bank and the utility all give services to and receive payments from a very large percentage of the population, and will undoubtedly make proposals as to how the effects of their pricing might adversely effect the incomes of non-participants and therefore their own organizations (as well as other participants) because of their dependence on the spending of non-participants. This will be particularly critical if the community wishes the government to provide either infrastructure, capital or operating finance to the project. The possible benefits of the project to these non-participants and therefore themselves must also be spelled out, of course.)

Needless to say, these proposals on non-participant effects, like all other data presented, should be vigorously analyzed and discussed by the participants.

2. All the costs (and the other calculations in #3-5, below) recommended will be recorded on a large, visible, easily erasable writing device ("blackboard" et.). And a first-round total cost will be given to the project.

3. Product Price

As described in the Appendix on Financial Organization, the price to the users of the product ("user-price") should be close to the prevailing market price. But if this price does not cover all the costs of production, other resources of the community, described in the Appendix, can be drawn on for the "community payment".

And so, given the costs (#1 and 2), a projection of sales will be made, and a first round "user price" and "community payment" will be assigned to the product.

4. Benefits

Next, the benefits to the participants (and non-participants) will be evaluated. Examples might be: employee earnings and the (anticipated) effect of their increased expenditures on the earnings of participants (banks, local government, utilities, etc.) and non-participants; reduction in consumer expenditures because of lower product prices; increased sales by suppliers and their links; increased sales by retail outlets; etc., etc. In small projects, these benefits (except, we hope, those for employees) are likely to be so small as to be unmeasurable.

Note that throughout this paper the major employee benefit has been considered to be "greater capacity to contribute", meaning -- generally -- skill development. It is assumed that if this skill

development is not accompanied by concrete wage improvement, the process will collapse at the outset. The wage levels that the community finally agree on will depend entirely, of course, on how much difference in income, standard of living, etc., the community can tolerate, since the community can set its wages (i.e., distribute income) any way it wishes.

5. Interaction

After considering these benefits and costs, participants may reconsider, or may be asked to reconsider, their first-round cost estimate, and change to a lower cost estimate.

At some point, each participant will have announced that he can change no further and the process will have been completed. (That is to say that there is probably no bottom figure obtainable beforehand, except in the case of governmental bond limits, in those communities where municipal taxing powers are available.)

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6. Final Project Selection

After all projects have been analyzed in this way, the final project(s) will be voted upon by the participants, with the votes weighted, most heavily to potential employees, next to the community organization (representing consumers) and then equally to the other participants.

7. Communal Contract

When the selection process has been completed, the participants will acknowledge their commitments to the pricing/marketing structure of the selected project, by signing a communal contract, which

spells out what is to be produced (in goods and skills), in what volume, at what price, with what factor supplies and costs, with what retail marketing mechanics (including retail product price), and with what consumer purchasing commitment. (The legality of such a contract would have to be explored, but "legality" should be the least important consideration in this kind of communal pact of responsibilities.)

THIS COMPLETES THE SET OF FIVE BASIC TASKS

IV. EXTENDED DISCUSSIONS

A. A NOTE ON THE QUESTION OF SCALE

One of the major obstacles to your decisions about going into consumer goods production may be a fear that only giant corporations can get in and stay the consumer goods markets. After all, you say, who's going to tangle with the Clorox Company, the Bayer Company and all the other titans of the consumer goods industry? Why you can and should tangle with Bayer and others is discussed elsewhere from the perspectives of both product choice (favoring the oldies-but-goodies) and scale. (For example, read Barry Stein's Doctoral Thesis.*) And in the matter of choice of scale, Hodax and Stein's study has demonstrated that even standard American Businessmen are starting consumer goods firms every year at employment scales of 100 or less. Some of the results of this study are included in Column 5, which identifies the 4 digit S.I.C. (Standard Industrial Classification) consumer industries with at least two new plants of employment size less than 100 (between 1963 and 1967), which correspond to products on the Check List. This column should not be used as a test however. Your decisions on scale should flow out of your own planning of technology, which in turn should be based on what your potential

* "The Potential for Decentralized Community Industries" (mimeographed, Cambridge: M.I.T., 1974).
Stein's doctoral thesis presents an original, and powerful case for rejecting the efficiency claims usually made for large-scale enterprises, and presents counter-arguments for small-scale industries and particularly, in a community development context, for the production of "mature", unchanging consumer products as the basis for new ventures. Barry's writings on scale and the special social characteristics of consumer products provided one of the key starting points for this paper, and his thesis as a whole is highly recommended.

employees and your economic support system can contribute.

We tend to worry about the problem of getting big enough, which is probably appropriate for competitive industries, but not necessarily for the supportive industries we're talking about here.

As a matter of fact, once you've started thinking about all the things you could make for yourself, and realize how many high quality goods could be made in somebody's basement or living room by four or five people (we're talking about legal things of course), the question might become "how small should we be." Every inner city and rural community has considerable experience in making or fixing goods and selling them or swapping them among neighbors, so the idea itself is nothing new, and no one has measured the dollars a community saves by this process.

B. DESIGNING THE COMMUNAL PRODUCTION TECHNOLOGY

The process of designing the right technology for your community products requires that you understand the differences between what you want and what's available in the "standard practice" technology commonly used in competitive industries (including your own export industries).

To distinguish between "standard practice" technology and the kind you'll need, I'll call the latter "communal production" technology, a term that conveys something of the small-scale and social nature of what you're doing. (E.F. Schumacher used the term "intermediate technology", which correctly conveys the scale idea, but implies that the real objective is the stuff the Big Boys use -- an implication that he himself would not agree with.) These differences between "standard practice" and "communal production" technology are in a) the scale of the technology, b) the relationship of the employees to the technology, c) the cost of the machinery and d) the maintenance characteristics of the technology. These are some of the basic problems you'll find in each category:

1. Scale

American technology is designed to serve large markets (unless it's for the production of luxury goods which we're not interested in here). Therefore most of the technology you find will not be efficient for the small populations you'll be serving (I'm assuming that you won't be serving consumer groups of more than 50,000 for any given product, at least in the near future.)

2. The Employees and the Technology

The technology that's currently being used by any American industry (no matter how "advanced" or "backward" it is), has been designed for the clear and specific purpose of producing products which will be competitive in the free market system. There is not a single industry in the U.S. whose technology is designed around the employment objectives that we're discussing here. Where employment considerations have been made (as they have been in every industry), they have been made to facilitate the primary objective of competitive production. If you find an industry that uses large numbers of low-skilled workers, it's only because that industry hasn't invested in research to make the technology less dependent on low-skilled labor. (Engineers call such industries "backward" or worse.) And therefore if you do find an industry -- like the apparel industry -- that uses a large number of low-skilled workers, you can expect to find the worst kind of working conditions -- the kind of working conditions "that only low-skilled people would tolerate."

The problem is to design technologies in which the (initial) complexity of tasks is at a low enough level for your employees to learn it easily, but which also involves a process of production -- an organization of work -- that makes the production mean something important to the employee. (Because the employees will be in on the designing process, the questions and trade-offs about what is and isn't degrading can be answered relatively easily.)

3. Costs

Machines that are too large and too complicated for what you need will also be too expensive for what you need, and in general American machines will often be too expansive for you.

4. Maintenance

Americans have a monstrously wasteful culture and their machines are part of that. You should expect most of the machines to use both themselves and the raw materials faster than you'll want.

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But if "standard technology" is not going to give you what you want, you'll have to do some redesigning for yourself, with the help of the technologist (if you need one).* And to carry out this redesigning, you'll need an understanding of what the characteristics of your industries and how they differ from free market industries. (And you'll need patience with the technologists, who -- according to themselves -- will almost certainly not understand when you start

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* Some of the (few) technologists known to be interested in the problems of small-scale and/or human-development technologies in the United States are:
-E.F. Schumacher, author of Small Is Beautiful (New York, London: Harper Torchbooks, 1973), and director of Intermediate Technologies, Ltd., (Parnell House, 25 Wilton Road, London, England, SWIV IJS).
-Volunteers for International Technical Assistance (VITA) (International Program, 3706 Rhode Island Avenue, Mt. Rainer, Maryland, 20822, 301-277-7000). VITA's International Program has lists of engineers, production managers, etc. living and working in this country, who've had experience in economic development (both foreign and domestic) and who can be called on by you for assistance in designing a technology.
-Charles Bliss, of the Arthur D. Little Co. (Acorn Park, Cambridge, Mass.)
-Seymour Melman, Professor of Industrial Engineering, Columbia University, New York City.

talking about technologies which are for the purpose of developing people.) The following should help to make decisions about your community product technologies. (I've used "men's work trousers" as an example of a product, following from the section on purchaser-group analysis.)

1. SCALE

a) Constant Sales Targets and the Reduction of Excess Capacity

You must emphasize that, in your industries, the "market" is constant, unchanging: if the community signs a contract for $20,000 units of men's work clothing, the factory knows that it must shoot for that target. But it will not have to build-in extra productive capacity and supply capability, to handle a major shift in "demand", as free enterprise industries must do. So the cost of production, from this standpoint, will be less costly than its counterpart in free enterprise (even at the same market size).

We'll assume that you have a community of 60,000 people and that the male work force is one quarter of the total, 15,000, of whom one half, 7,500, will buy work trousers, twice a year. (Total: 15,000 units per year.)

b) Number of Employees

You'll want to know how large your labor force in the enterprise will be to judge how much equipment you'll need -- assuming that the amount of equipment will be in a constant proportion to workers (up to a certain point where a different kind of machine might be used because of economics of scale, whether you'll want to switch to that "more efficient" machine will be a question for you to decide on the

basis of social goals; the technologist may tend to make the switch automatically.)

Your community will have to make an important decision on the minimum size of employee-group that it will invest in. Will it invest in an industry where five employees have shown an interest, or is twenty, e.g., the smallest opening size? This scale question may be partially answered by the technological analysis (some technologies will require more than five employees to generate the required output at the required price). And it can also be answered by considering the amount of investment capital you have. The process of "nickle-and-diming to death" is well-known in community organizations and since the basic reason for the community products program is to generate as much skill-development as possible, it follows that you'll want to invest, as often as possible, in industries which use the largest work force.

But you may also be concerned with developing as much interest in production (i.e. contribution) as possible, as much capacity as possible for starting things yourselves, and since in the beginning at least, it may be hard to attract employees to import substitution, you may want to invest in industries with less than twenty employees.

One additional reason for considering small scale employment is likely to become important: many of the community product enterprises -- for aspirins, or pencils or paper cups -- many require only small (5 to 10) work forces at their peak operation because of the size of your community and the slowness of its population growth.

Two possibilities might be considered at this point of maximum

communal output:

1) Organization for export: create an entirely new division for exports, using some of the present employees for the new export division and using some as the teaching nucleus for the community product.

Or 2) Multi-product work teams: Use the same work force to make some of the other products which require only small work forces. These small work forces could then shift from one product to another in the course of a day or week. And given the repetitive nature of the production of many consumer goods, it will be very important to the workers to be able to say goodby to aspirins at noon or on Wednesday, and to shift over to something else that won't absorb a whole work week.

2. THE EMPLOYEES: SKILL LEVELS AND WORK DESIGN

a) Prior skills and evaluation

Many of the under-utilized people in your community may lack adequate employment only because the standard way to determine "employability" for a given job is to ask the applicant what his previous experience on that kind of job has been. Since large numbers of employed people haven't had experience on those jobs, they don't get them. But in fact, the applicant may have many skills in his or her background that are very useful to the job being offered, skills in working in organizations, working with machines (like cars), etc.

Sidney Fine, (at the W.E. Upjohn Institue for Employment Research, 1101 17th Street, N.W., Washington, D.C.) is developing a method for

relating potential employees to "jobs" by relating the tasks the employees can perform and the tasks involved in a particular job.*

b) Reorganizing the Tasks

In Fine's approach to skill development, the logical follow-up to the above is to reorganize the tasks that make up a job on the basis of the tasks which potential employees can already perform. That is, instead of re-working the worker, re-work the job.

c) Reorganizing the Processes

The production of any product is made up of a set of fundamental processes which can be broken down into a series of tasks. In the production of men's work trousers, for example, the basic processes are: 1) cutting the material according to a pattern, 2) sewing the pieces together to make the trousers, 3) pressing the trousers and packaging. Any production has basic PROCESSES. And these processes have elements to them, the TASKS: applying the pattern, positioning the cutting instruments, etc., according to performance criteria.

In some if not most standard American industries, the processes themselves have been organized in ways that are less than satisfying to human beings, because each process has been isolated from the other, so that in a factory producing men's work clothing, one worker will work on one part of the cutting process, the next worker will

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* For an introduction to this idea, see:
Sidney Fine and Wretha Wiley, An Introduction to Functional Job Analysis: A Scaling of Selected Tasks from the Social Welfare Field, Washington D.C.: The W.E. Upjohn Institute for Employment Research, 1971.

work on the next part of the cutting process, etc. etc., ad nauseum. No one does all the processes or even most of them, no one does the whole thing, and one of the results is that factories producing men's work clothing (and other kinds of apparel) typically experience 50 to 100% turnover in a year, (according to Stelious Arghyros of M.I.T.). You can see why.

The point is that you have the option of organizing the processes themselves in any way that you consider most satisfactory (given all the trade-offs on production criteria you're working with.) And in the case of men's work trousers, it would certainly be important to recommend to the technologist that he design a technology so that each worker or a small group of workers can complete a whole product. (In some cases, like the production of aspirins, the product is so elemental that the problem of boring work has to be approached differently, for example by using the multi-product approach suggested earlier.)

d) Redesigning the Product

You might discover that you really don't need the product as it's now made, but something less (or more) or even something completely different. In men's work clothing you might want to discard pockets or belt loops, etc. or use work aprons or improve the control of elements that wear out the pants, etc. These kinds of things will usually turn-on the imaginative engineer and some of it may be productive. For example, in another product used by your community, sewers, engineers and planners are beginning to realize that you

don't need better sewers which are very clumsy, expensive and space-wasting -- you need better waste disposal systems, especially ones that can recycle wastes; and this is leading to research in small scale, disaggregated, above-ground inexpensive units.

Product redesign might very well follow from an assessment of skill requirements, and acceptable work conditions, although it's usually the last thing to be considered in a technological design. It's worth watching for, in any case.

3. CAPACITY TO INVEST IN THE TECHNOLOGY

It would, of course, be impossible to state accurately how much money was available for the purchase of equipment even in an on-going organization, without some qualifications about the capacity to borrow, the productuve capabilities of the machines, training costs, etc. In our case we have a new organization with no funds in the bank.

The analysis of financial capability is given more extensive treatment in the Appendix (Financial Organization), so here I'll just summarize the considerations that will go into calculations of capital expenditure:

a. The difference, if any, between real production costs and the price which the user of the product will pay.

b. The ability of communally-owned export industries to provide that cost-difference (if any).

c. The use of the income of the community-as-a-whole to provide any additional portion of the cost-difference not covered by the export industries.

4. MAINTENANCE

The issue of maintenance -- especially in the resource-conscious period ahead -- whould be given equal status with all the more usual considerations listed above, because within the issue of maintenance lie not only matters which affect costs and therefore limits to capacity to spend, but also to the essentials of self-reliance and even more fundamentally, to the relationship of your community to the rest of earth's Life.

a) Production Stoppage

The easiest thing to discuss with a technologist will be your concern about production stoppages and cost overruns as a result of mechanical breakdowns in the communal economy. We can assume that you'll have considerably more flexibility in meeting production schedules than in the hotly competitive, so that shouldn't be your primary concern.

b) Import Costs

But the problem of paying for new imported parts and service is much more important because of the money lost to the outside in the process. (One of the secondary objectives of import substitution is to conserve the community's income by reducing the payments to workers of other localities.) Although you may not be able to put a dollar figure on the maximum servicing costs, you should expect the technologist to guide you to the machines with lower maintenance costs than other machines of a similar type.

In most cases, you'll be looking for used equipment, both because of the lower cost and because the older equipment probably has the

least advanced technology. This older equipment may also be easier to maintain, because of the sturdier build of equipment from days when technological change was less rapid (and machines were therefore expected to perform longer), and 2) the slower speed of the machinery, and the slower the speed, the less maintenance, as a general rule.

c) Self-Reliance

Of equal or greated importance than the monetary cost of importing parts and labor, is the "opportunity cost" in developing the skills to keep things going; that is, when you have to call in the outside mechanic you've lost the ability to learn how to do it yourself. (It's the same principle as the one applied to production.)

We'll assume that you can now find the most maintenance-free machines; but even the most maintenance-free machines obviously need some repairs and servicing, so it's now a question of developing your own maintenance capability. There is a strong consensus amoung the development technologists I've spoken with that one of the most important aspects of the community products process will be the development of a strong machine-shop sector with the capacity to generate its own designs. (This design capability will be especially important if you find -- as you often will -- that the best machinery for your purposes was manufactured in Europe (often Poland or Czechoslovakia) and that even nuts and bolts for these machines aren't available in this country.)

d) Recycling of Waste Products

Everyone in the United States will be required to understand that the age of infinite resources is about to close, and this fact will

be clearest fastest to the poorest. (If "we" runout of fuel, for example, the poor communities will know it first.) The close on the age of infinite resources is a good thing too, because it may help your community understand that the poor people of your community are basically waste products of a society that thought that -- because you could always get more (anything) -- you could use anything up and throw it away, people included.

The desire to utilize the people of your community to the maximum of their capabilities, should lead to a desire to give the same care to the material elements of your community, both because it's a bad spiritual idea to have a garbage mentality and because of the simple and increasing necessity to get the maximum mileage out of everything.

The idea of re-using things is certainly not news to poor people, but what will be new is the idea of designing technologies in communities so that the waste products of one industry are supplies to another.

And the extension of this idea, as Charles Bliss of Arthur D. Little has suggested to us, is to choose industries themselves at least partially on the basis of their conservation-relationships to each other.

C. MAINTAINING THE COMMUNITY OF LIVING BEINGS

(For Lewis Mumford)

From the beginning of this piece, we've been concerned with finding a way of forming a community which is based on the desire to develop and sustain the productive lives of the people of the community; and on the premise that no member of the community should have greater access to security in life than another.

Just as these concerns apply to all the people of the community -- not just the under-utilized --, they should apply equally to the rest of the community, the other-than-human members, as well, because they are there and they are alive. And since they are there and alive, they are related to us and are part of our Big Family.

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But its very difficult for most of us to even conceive of having this kind of relation with the rest of life, and its worth spending some time trying to understand why.

In the chapter of Transformations of Man* titled "Animal Into Human", Lewis Mumford explores the deeply important means which "man" has developed to attempt to distinguish himself from the rest of biological life and particularly from the other animals, in man's "fear of relapsing into animalhood", as Mumford

* Lewis Mumford, The Transformations of Man, New York, London: Harper Torchbooks, 1956.

puts it. His students have discovered some of the great efforts sustained to keep this distinction inviolate, from taboos against sexual relations with other animals, to the astonishing elaborations of religious systems devised to assure man that in his case, death was not the end of the trip as it was for every other form of existence larger than a molecule; that life -- after procreation -- was not pointless for us, as it was for them.

And man, as a whole, is finally seen as one great Man, struggling as fiercely as any flag-waving, rifle-toting bunch of rednecks to assure themselves that they are now and will be in the future, by God, superior.

Mumford observes, in chapter Axial Man, that "a real turning point of human history" occured with the invention of axial religions, around the 6th century B.C. "The most fundamental early contribution" of this phenomenal invention, Mumford writes,"was the notion that temporal events, touching finite beings, had an eternal significance: that the brief life of man does not end at death, but is continued in another sphere; and that the quality of that longer existence is the subject of an ultimate judgement, which determines whether he who is judged is to participate fully in that after-life or be deprived of its benefits, perhaps even punished." (pp. 57-58)

Mumford marks the origin of this invention at a very late date in man's history (6th century B.C.). But one of his students,

Mahmoud Shabandar, in noting man's eternal "identity crisis" vis-a-vis the rest of Life, observed that the most primitive men have left us clear signs that their burial rites were designed for precisely the same function -- the separation of themselves as beings from the other forms of life which (ostensibly) died unceremoniously and rotted on the earth.

It seems clear then that the distinction between the "separatist" intentions of primitive and axial men were in means only, not ends.

Mumford himself evidences this urgent separatist need throughout Transformations, a book which was conceived, according to Mumford, as a study of how man succeeded in transforming himself from from an animal into the human being.

This notion of self-transformation by man -- "man's achievement of the specifically human", the concern with "the means by which man detached himself from his organic limitations" (my underlines), and with the fear of falling "back into sleepy animalhood" -- are unquestionably presented with the hope of convincing his readers (and probably himself) that, in Russell's words, "man will prevail" through this difficult century and beyond.

But the consequences of true belief in these self-transforming powers are, in the end, self-defeating, and in my mind are themselves the more probable real cause of the state of Western man's

troubled life, through the powerful Spiral created:

The fear of death leads to a need for a superiority for which there is no possible justification; the ability to rely on the rest of Life is reduced (except in a master/servant relationship); the belief in an ability to contribute to the rest of Life collapses further; a resentment develops at being isolated "ignored"; loneliness, craziness; an increased reliance on man; greater complexity in social relationships; less time available to spend with the rest of Life; a diminished ability to use the broader "sensual" language of nature; the ability to rely on the rest of Life is reduced. . .

And Mumford himself sees the problem: "In present man's attitude toward nature, the sense of oneness and affectionate harmony, which induced primitive man to bestow his vitality on sticks and stones, disappears; nature becomes so much dead material, to be broken down, resynthesized, and replaced by a machine-made equivalent. So too, with the human personality: one part of it, the rational intelligence, is inflated to superhuman dimensions: every other part is deflated or displaced." (pp. 125-6)

Nevertheless, Mumford's greatest concern in writing The Transformation of Man appears to have been the identification of that which makes man "uniquely human", and which makes it possible for man to master Life more successfully than his other-than-human

companions of the earth.

Man, is, in fact, just as capable of doing Life "right" and "well", and just as incapable of doing Life "right" and "well", as a flock of penguins or an oak forest.

And if any one body of literature demonstrates that fact, it has been the life work of Lewis Mumford, who -- through its astonishing depth, vitality and above all, honesty -- has shown us what we've accomplished and why, and how far we are from what "could be." Man, through Mumford, humbles himself; and to good purpose.

There are limits. There is no Progress. We persevere, as all Life does; we plant seeds, try to do whatever else is necessary for collective security (our cultures),and die.

Community Development and the Spiral

If the proposition about "the Spiral" is correct, than we should be alert both to an increasing separateness from the other-than-human members of the community, and to its counterpart, the increasing reliance on highly-calculated human organization. What we apparently need is some stable midpoint, a feeling that movement has stopped and that the Spiral can begin to unwind again.

The process of social and economic development proposed here might tend to intensify the trends toward isolation, because of the greater need for organization and planning. This prob-

lem will be especially troublesome in the beginning, when uncertainty will be at its maximum and the participants will naturally clutch for, and go to great lengths to organize rules of relationship. Meetings will increase in form, number, length and complexity; time spent unhassled will erode like river banks in a torrent.

But after the initial period of grasping and securing the new forms of the process, it will be important to work back toward that stable middle ground.

It's hardly possible to deal with this subject in any depth here. But attention to the reduction of COMPLEXITY, in language and time, are fundamental, and should be a good point of departure.

Simplification of Language

The most important example of destructive complexity will be the increased growth of specialized "technical" languages understood only by a few: Every self-serving technocrat understands this and attempts to, or at least allows himself to, create a social distance from others by increasing the complexity of processes (therefore, the language of processes) at the "top". So it will be important to remember, in the course of putting any aspect of this process together, that the simpler, the more transparent the procedure, the more comprehensible it will be to the largest number of people. (This holds for everything from the production technology to the communal contract meeting.)

A simple test for this cancer of over-complexity is: whenever, in the course of discussion between the people of the community, one of the parties says something that another cannot understand and which cannot be explained in the course of that discussion, that language is separating, not integrating. (This whole paper should be given that same test, of course.)

It follows, of course that the community should strive to continually simplify its language, reducing the number of non-essential expressions and deepening their content, until the language is capable of integrating all the members of the community, human and otherwise.

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Release of Time Through the Simplification of Language

The division of language into smaller and smaller elements serves not only to separate people from each other, but also to occupy and extend the experience of time. (A period of time expands as the number of events experienced in that period of time increases, as any marijuana smoker knows). And as time spent dealing with sub-divisions of language increases, time spent in more essential discourse must decrease. Ordinarily the elimination of time begins with the time devoted to the other-than-human members of the community, and then proceeds backwards through the time given to the human members.

So we'll want the simplification of language to result in an

increase in time released back into the community, as far as it will reach. That is, time is released by an increase in common understanding. The wider and deeper the understanding the greater the release of time; the greater the release of time, the deeper the possibilities for understanding, etc. (until in the state of peace, the whole community is absorbed in the understanding of one thing, a universe.)

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Most of the elements of the process recommended here, like most of the activities of every living being, can be best understood, I think, as a means of extending security.

The real problem for us, always, is to understand what it is that we're securing ourselves against.

D. APPENDIX: FINANCIAL ORGANIZATION

The community contract will be primarily between the community and the employees. The product produced by the employees may be bought by every household in the community or, more probably, for a limited part of the community, as in the example of the male employees who need work pants. But the responsibility for the support and development of the community products enterprise is in the hands of the whole community; therefore the whole community must be prepared to commit itself to financial (and social) support, if needed. Here are a few methods for covering real costs (who should pay what and how).

1. Price to the User

I suggest that the price of the community product to the primary user (in an example, the male workers) should be close to the price of the product now used (i.e. the "market price"). I recommend this because the users are just a small segment of the community and should not be asked to give sole support to the community products by paying a significantly higher price for the product than what they pay now. This should be especially true for poor people.

2. Mechanics of the Payment Process

a. If the real cost of the product is close to the market price, then the users will be able to pay for the product completely.

b. But if the real cost is considerably higher than the market price, the users should not be asked to bear the additional cost burden, because it's a community product (that is, because the community as a whole takes responsibility for the welfare of its

employees in these enterprises).

Two possibilities exist for the organization of the financial support needed to cover these additional cost burdens: 1) Surplus from communally-owned export industries; 2) Income earned by residents of the community; (or a combination of the two).

It is critical to understand that #1 and #2 are basically the same thing. All income in the community has been earned by exporting; that is, people in the community have exchanged goods and services made in the community with people who live outside the community for money. Some have worked for communally-owned export industries; some have worked for industries owned outside the community; some have worked as private individuals. If they have sold goods and services to non-residents, they are exporters.

On the other hand, the money exchanged for goods and services within the community has simply been circulated. No new money has been earned in the exchanges within the community. Therefore we're talking about the DISTRIBUTION OF COMMUNITY INCOME.

So you should be clear about the fact that the income of every member of the community comes originally from exporting. And therefore, no useful financial distinction can be made between the income

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* As Moktar Latiri of Tunisia pointed out to me, economic development projects in many developing economies serve the exclusive purpose of rationalizing meagre financial hand-outs from the wealthy to the poor, thereby reducing guilt-problems. Obviously, if there is a wide range of incomes in your community and more people well-off than poor, and the development of community product industries does not significantly reduce there differences, after a reasonable length of time, then the same analysis might hold for your community.

of communally-owned industries which export and the incomes of individuals within the community.

There are, however, administrative differences between the obtaining of funds from the two groups (the industries and the individuals): it's obviously easier to administer the receipt of funds from the small number of industries than from the individuals.

So I suggest this "decision rule":

When the real cost of production is higher than the price users can pay; 1) The first source of community payment will be communally-owned industries. If these industries have provided for themselves to the satisfaction of the community (which owns them), and carry a surplus,then these industries should provide the surplus to the community product industries. ("Industry payment") 2) If that surplus does not completely cover the cost difference, then the community-as-a-whole should supply the remainder. ("Community payment")

The only method for organizing the "community payment" which assures a committed payment (as the contract requires) will resemble a tax: a fixed amount expected from every (applicable) individual in the community, sent by the individual to one central place, and with a clear-cut penalty (social/financial) for non-payment.

This method does not require a legal governmental body for its administration (i.e. it doesn't have to be a legal ("tax"). But it does require a strong enough committment on the part of the users (and a strong enough power of social penalty on the part of community organizations) to be able to have an assured follow through on the

financial obligations agreed to in the communal contract. (If the community has a responsive municipal government or some other taxing authority, so much the better. Perhaps, as an alternative, the community could invent an official "economic development taxing district" -- similar to the present special districts set-up to tax for public services.)

(It's worth mentioning the "options" to such a method, to get the sense of the organizational requirements. These options are tested in degrees of voluntary action.

(One option is the "United Appeal/Community Chest" form which requires door-to-door solicitations of voluntary amounts, with no penalties for non-payment. (To the extent that these payments are required, as they are in a few organizations, they are identical to the committed "community payment".)

(An even less reliable form would be the use of savings deposits or credit union accounts, which would be wholly voluntary and subject to individual decisions about the need for individual security, and therefore not a useful form for this function.

(Some form of "required savings", which would resemble an interest-returning tax, might be useful, however, especially at such a time when the community has the need for a long-range development reserve which might be invested in capital markets outside the community or in secure investments within the community. The promise of a secure individual interest-return -- as in any "savings" plan -- should not be the basis for investments in consumer products, however,

because -- by definition -- the community product enterprises will generate no surplus: everything (except imported loan-interest) is exchanged within the community.)

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Start-up capital and short-term loans

The suggestions above cover the process of paying for products after the enterprise is up and running, and they are, in addition, limited to costs which are settled-on in advance, in the communal contract.

We must also consider the need for a) large sums of money available in a short time for the purchase of machines and initial materials, supplies and wages ("start-up" capital) and b) a source of funds for contingencies (variations in inputs, etc.).

In both cases, of course, you'll need the services of an already-organized fund of capital. In standard economic practice this fund would be found in a bank, a savings institution or any of the many other forms of financial intermediaries available to free-enterprise organizations.

You'll know whether you can count on your local bank, etc. (and something about the prospects in the capital markets outside your community), during the course of Task #4. One aspect of this communal contract process may be a clear advantage to you, in dealing with suppliers of start-up capital, working capital, etc.: when the production and payment processes function well, the scale of community products will be more assured, less risky, than a typical export

product; the sale will be stipulated by contract. (I wouldn't count on this being a major "selling point" to a standard free-enterprise banker until those payment mechanics and production processes are worked out, of course.)

V. EXPENDITURE CHECK LIST

Column Identification
(See text for full explanations)

1. Product or Product-group

2. Average annual expenditure on the product by families earning $3-5,000/yr. (1960-61)

3. Differences between central city and rural expenditures. a = rural expenditures stronger; b = central city stronger. (1960-61)

4. Differences betwen regional expenditures (1960-61)

(5. Scale (1970), Not a Check List item. See p.)

Rank	1	2	3 a	3 b	4	(5)
1	Cars	$200.39				
2	Gasoline	135.46	x			
3	Cigarettes	67.60				
4	Fresh whole milk, delivered	49.92				
5	Pork, fresh and frozen	40.56				
6	Poultry, fresh & frozen	40.56				
7	Eggs	38.48				
8	White bread	34.32				
9	Beef steaks, fresh & frozen	43.80		x		
10	Prescrip. drugs	32.75				
11	Ground beef, fresh & frozen	31.72				
12	Fresh whole milk, retail	28.08			S-	
13	Beef roasts, fresh & frozen	26.52				
14	Cold cuts	22.36				s
15	Womens' dresses	21.61		x		s
16	Newspapers	21.42		x		s
17	Men's suits, sport coats, trousers	20.07		x		s
18	Bacon	19.76				s
19	Women's shoes	19.21				
20	Tires, new	18.32				
21	Women's underwear	17.20				s
22	Beer	16.64		x		
23	Ice cream, sherbet, popsicles	16.12				
24	Other T.V.	14.35		x		
25	Coffee in cans	14.04				
26	Living room suits	13.75				
27	Sugar	13.52				
28	Potatoes	13.52				
29	Women's hosiery	13.09				
30	Refrigerators	12.90				
31	Men's shoes	12.81				
32	American and other solid cheese	12.48				s
33	Fish, (fresh, frozen, smoked, cured, etc.)	11.96		x	NE+	
34	Dental needs	11.70				s
35	Cookies	11.44				
36	Frankfurters	11.44				s
37	Butter	11.44			S-	

Rank	1	2	3 a	3 b	4	(5)
38	Cola drinks	11.44				
39	Clothing materials	11.38				
40	Pet food	11.07				
41	Ham	10.92				s
42	Evap. & Cond. milk	10.92	x		S+	s
43	Citrus fruit	10.92				
44	T.V. portable or table	10.60				
45	non-prescription drugs	10.52				
46	Flour	10.40	x			
47	Motor oil	10.01	x			
48	Other living room pieces	9.91		x		
49	Candy	9.88				
50	Margarine	9.88				
51	Other cosmetics	9.48				
52	Toilet soap	9.48				s
53	Cakes, pies, pastries	9.36		x	NE+	
54	Instant coffee	8.84			NE+	
55	Doughnuts, etc.	8.84			S-	
56	Bedroom suites	8.57		x		
57	Synthetic detergent	8.32				s
58	Bananas	8.32				
59	Washing machine, automatic	7.94				
60	Shampoos, hair prep., other	7.89				s
61	Vitamins	7.87		x		
62	Apples	7.80				
63	Men's work trousers	6.82	x			s
64	Coffee in bags	6.76				
65	Soap (bars, flakes, granules)	6.76				s
66	Mens shirts, other	6.64				s
67	Men's underwear	6.50				s
68	Girl's shoes (age 2-15)	6.24		x		
69	Other bread	6.24		x	S-	
70	Blended whiskey	6.24		x	NE+	
71	Lettuce, other salad greens	6.24				
72	Rice, other cold cerals	5.72				
73	Macroni, Spaghetti, noodles	5.72			S-	
74	Chocolate, other fresh milk	5.72			NE-	
75	Canned tuna	5.72			NE+	
76	Tomatoes, fresh	5.72				
77	Potato chips	5.72				
78	Baby food, fruits, vegetables	5.72				
79	Women's jewelry & watches	5.53				
80	Razors & blades	5.49				s
81	Cleansing tissues	5.40				s
82	Girl's dresses (age 2-15)	5.12				
83	Women's other outerwear	5.12				s
84	Sanitary supplies	5.07				
85	Home freezers	5.06	x		NE-	s
86	Boys suits, sport coats, trousers (age 2-15)	4.98				s
87	Sewing machines	4.74				
88	Car batteries	4.69				
89	Cake mix	4.68				
90	Rice	4.68				
91	Soda crackers	4.68				

Rank	1	2	3 a	3 b	4	(5)
92	Cottage, other soft cheese	4.68			S-	
93	Canned peaches	4.68				
94	Canned or bottled corn	4.68				
95	Frozen orange juice	4.68				
96	Other shortening	4.68				
97	Jams, jellies, preserves	4.68				
98	Tea	4.68			NE+	
99	Catsup, other sauces	4.68				
100	Vacuum cleaners	4.59				s
101	Boys play clothes (age 2-15)	4.38				
102	Lawn movers	4.34				s
103	Canned ham	4.16				
104	Lard	4.16	x		S+	s
105	Bleaches, disinfectants	4.16				s
106	Women's nightwear	4.14				
107	Men's hosiery	4.12				
108	Men's dress shirts	4.03		x		s
109	Shaving preparations	3.96				s
110	Cooking stoves, elec.	3.93	x			
111	Boy's shirts (age 2-15)	3.85				s
112	Records, tapes, reels	3.75		x		s
113	Sheets	3.73				
114	Women's sweaters	3.70		x		
115	Pianos and Organs	3.65		x		s
116	Phonographs and tape recorders	3.60				
117	Dinette sets	3.54				
118	Women's slacks, shorts, etc.	3.53				
119	Girls underwear (age 2-15)	3.52				s
120	Washing machines, non-automatic	3.50	x			
121	Cooking stoves, gas	3.47				
122	Women's hand bags, purses	3.43		x		
123	Crafts and other hobbies	3.42				
124	Radios, portable and table	3.36				
125	Electric light bulbs	3.20				

Total Expenditures for
125 Products $1673